

## Tingey, Christopher

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**From:** Bierschenk, Arnold  
**Sent:** Wednesday, February 14, 2018 2:41 PM  
**To:** Tingey, Christopher  
**Subject:** FW: Monitor Wells (Phase I - North Side)  
**Attachments:** Sampling Results. MW#20 to MW#29.pdf; MW #20.TIF; MW #21.TIF; MW #22.TIF; MW #23.TIF; MW #24.TIF; MW #25.TIF; MW #26.TIF; MW #27.TIF; MW #28.TIF; MW #29.TIF

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**From:** Erwin Pino [mailto:erwin.pino@chaparralenergy.com]  
**Sent:** Tuesday, August 13, 2013 8:34 AM  
**To:** Todd, Robert <Todd.Robert@epa.gov>; Bierschenk, Arnold <bierschenk.arnold@epa.gov>; Harvill, Jana <Harvill.Jana@epa.gov>  
**Subject:** RE: Monitor Wells (Phase I - North Side)

Good Morning Robert,

Attached are the monitoring sample analysis results (Baseline) for the MW#20 - MW#29 and also the logs ran on each monitor well.

Now the Area Permit Conditions are met in the following wells:

- NBU # 3-W23
- NBU # 3-W24
- NBU # 4-W22
- NBU #9-W21
- NBU #9-W25
- NBU #9-W27
- NBU #5-W21
- NBU #5-W41
- NBU #6-W42
- NBU #11-W21
- NBU #25-W41

Arnold, I would greatly appreciate if you can grant the Injection in at least the first six wells above listed before our weekly meeting which will be held tomorrow at 9 am.

Thanks,

**Erwin Pino**

Regulatory Engineer  
Chaparral Energy, L.L.C.  
701 Cedar Lake Blvd.

Oklahoma City, Oklahoma 73114  
Direct Phone (405) 426-4081  
Direct Fax (405) 425-8681

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**From:** Todd, Robert [mailto:Todd.Robert@epa.gov]  
**Sent:** Wednesday, August 07, 2013 10:47 AM  
**To:** Bierschenk, Arnold; Harvill, Jana; Erwin Pino  
**Subject:** RE: Monitor Wells (Phase I - North Side)

The GP shows at G. 2. (see below), that the company needs to obtain a baseline monitoring samples before injection in a relevant quarter section can begin.

Robert

G. Monitoring Requirements

1. Quarterly, the permittee shall measure static water level and analyze for chlorides, total dissolved solids (TDS) and alkalinity in each monitor well. Samples are to be analyzed according to procedures set out in the most recent edition of Standard Methods for the Examination of Water and Wastewater. To ensure appropriate collection and analysis the permittee must submit a field sampling plan and quality assurance project plan within 90 days of the date of this permit.-
2. The permittee shall utilize the first sampling results from all monitoring wells in a quarter section to establish baseline groundwater quality for that monitoring well. The first quarterly sample must be acquired prior to injection in the quarter section.
3. If at the end of two years the monitoring results do not exceed thirty percent of the baseline established for any specific monitoring well by the first quarterly sample analysis in Part I. G. 2., the frequency of sampling that monitoring well can be reduced to once a year, if approved by the Chief.

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**From:** Bierschenk, Arnold  
**Sent:** Wednesday, August 07, 2013 10:17 AM  
**To:** Todd, Robert; Harvill, Jana  
**Subject:** RE: Monitor Wells (Phase I - North Side)

Unfortunately, you may be right. You need to buddy up to him more Robert.

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**From:** Todd, Robert  
**Sent:** Wednesday, August 07, 2013 10:15 AM  
**To:** Bierschenk, Arnold; Harvill, Jana  
**Subject:** RE: Monitor Wells (Phase I - North Side)

I really think he wants to hear from you....

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**From:** Bierschenk, Arnold  
**Sent:** Wednesday, August 07, 2013 10:14 AM  
**To:** Todd, Robert; Harvill, Jana  
**Subject:** RE: Monitor Wells (Phase I - North Side)

You may want to check the permit language again, but I think we might need to have sampling results for all these wells first? If they only need to install they are probably good, but if we need baseline sampling first, just let him know that. It will speed him along.

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**From:** Todd, Robert  
**Sent:** Wednesday, August 07, 2013 10:11 AM  
**To:** Bierschenk, Arnold; Harvill, Jana  
**Subject:** RE: Monitor Wells (Phase I - North Side)

The db show shows the AoR on these wells to be okay. With the operation of the MW network in this area the GP conditions are met. Correct?

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**From:** Bierschenk, Arnold  
**Sent:** Wednesday, August 07, 2013 9:57 AM  
**To:** Todd, Robert; Harvill, Jana  
**Subject:** FW: Monitor Wells (Phase I - North Side)

FYI – not sure if this is a question or a statement by Erwin

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**From:** Erwin Pino [<mailto:erwin.pino@chaparralenergy.com>]  
**Sent:** Wednesday, August 07, 2013 9:54 AM  
**To:** Bierschenk, Arnold  
**Subject:** Monitor Wells (Phase I - North Side)

Arnold,

As I just mentioned in the prior email, we have installed the monitor wells on the north and east side of the permit area to be in compliance. It would be possible grant the authorization to inject CO2 and/or H2O in the following wells:

- NBU #3-W24
- NBU #4-W22
- NBU # 9-W21
- NBU #9-W25
- NBU #9-W27

Thanks,

## Erwin Pino

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